# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-38

☐ Other ☐ Amendment Number:

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Oil & Gas Engineering Support |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☒ Work Assignment
- ☐ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/26/2012 To 09/25/2013

Comments:
Work shall not commence on this work assignment until September 26, 2012.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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### Authorized Work Assignment Ceiling

| Contract Period: | Cost/Fee: | LOE: |
|---|---|---|
| 09/26/2012 To 09/25/2013 | | |
| This Action: | | |
| Total: | | |

### Work Plan / Cost Estimate Approvals

| | Cost/Fee: | LOE: |
|---|---|---|
| Contractor WP Dated: | | |
| Cumulative Approved: | | |

| | |
|---|---|
| Work Assignment Manager Name: Lisa Biddle<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-0350<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |

**Performance Work Statement**
**Contract EP-C-12-021**
**Work Assignment 0-38**

**Title:** Unconventional Oil & Gas Engineering Support

**Work Assignment Manager (WAM):** Lisa Biddle

**Alternate Work Assignment Manager:** Brian D'Amico

**Alternate Work Assignment Manager:** Ahmar Siddiqui

**Period of Performance (POP):** September 26, 2012 through September 25, 2013

## I- Purpose

The purpose of this work assignment is to provide contractor tasks to support EPA's development of effluent limitations guidelines and standards (ELGs) for the unconventional oil and gas industry.

## II- Introduction

The Clean Water Act directs EPA to develop national regulations placing limits on the pollutants that are discharged by categories of industry to rivers and streams or to sewage treatment plants. This work assignment supports EPA's development of effluent limitations guidelines and standards (collectively referred to as ELGs) for the oil and gas extraction point source category (40 CFR Part 435).

EPA is developing a proposed rule to amend the Effluent Limitation Guidelines (ELGs) for the Oil and Gas Extraction Category, 40 CFR Part 435. The rule is scheduled for publication in 2014.

EPA published a report on the coalbed methane extraction industry as part of its 2010 ELG plan. In the plan, EPA stated that was initiating two separate rulemakings to revise Part 435 to address discharges from coalbed methane and from shale gas extraction. The Agency had decided that separate rulemaking actions were appropriate for two main reasons: 1) shale gas is extracted primarily through a combination of horizontal drilling and hydraulic fracturing and coalbed methane is not; and 2) EPA was further ahead in its data collection activities for coalbed methane than for shale gas extraction.

Since 2010, EPA learned that the economics of extracting oil and gas from one source is intrinsically linked with the economics of extraction from other available sources. For example, increased shale gas production over the last year led to an overabundance of supply, which led to a decrease in gas prices that not only affects shale gas extraction but also coalbed methane. The

result is that much of the data EPA previously collected for coalbed methane are outdated. Therefore, because of the market overlap in the extraction of shale gas and coalbed methane, EPA is combining these two topics of inquiry into a single rulemaking project. This will allow the Agency additional time to collect updated information on coalbed methane and to appropriately consider the collective impacts and effects of the combined rulemaking.

## III- General Work Assignment Requirements (PWS Section 3.0)

### Deliverable Formatting and Terminology

Throughout this work assignment, the contractor shall provide draft and final reports to EPA in electronic format, with hard copy format also provided when directed by the work assignment manager. The contractor shall discuss the computer file formats to be used for word processing, spreadsheet, database and graphics with the EPA WAM prior to file preparation. The EPA WAM will identify for the contractor which documents will be posted on EPA's Effluent Guidelines webpage. These documents posted to the Effluent Guidelines webpage must be Section 508 compliant.1

### Travel

Non-local travel by the contractor employees and/or subcontractors will be required to support the scope of this work assignment (e.g., site visits and public meetings). The contractor shall provide specific travel details and costs in a request for travel approval by the EPA WAM and the EPA Project Officer (PO) before each trip occurs (as specified by the contract per clause H.32).

### Confidential Business Information

The contractor shall, at all times, adhere to Confidential Business Information (CBI) procedures when handling industry information. The contractor shall manage all reports, documents, and other materials and all draft documents developed under this work assignment in accordance with the procedures set forth in the "Security Plan for Handling Confidential Business Information Under the Clean Water Act" (September 2002) or its successor approved plans.

### Identification as Contracting Staff

To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and visiting field sites. When speaking with the public the contractor should refer all interpretations of policy to the EPA WAM.

1 See http://www.epa.gov/epahome/accessibility.htm.

Limitation of Contractor Activities

The contractor shall submit drafts of all deliverables to the EPA WAM for review prior to submission of the final product. The contractor shall incorporate all EPA WAM comments into all final deliverables, unless otherwise agreed upon by the EPA WAM. The contractor will adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), PO, and WAM.

Deliverable Due Dates

For the purpose of developing this work plan, the contractor shall assume the deliverable due dates in the tables for each task presented further. Major technical deliverables shall be subject to internal contractor peer review by an expert(s) not directly involved in the mainstream Work Assignment tasks. Deliverables will be prepared with proper adherence to EPA style and format requirements.

## IV- Tasks

### Task 1: Program Management –

The contractor shall prepare and submit a detailed work plan that outlines the approach and methodology that shall be used to perform the tasks identified in this Work Assignment. The work plan shall specify the work to be done for each task, and the allocation of personnel, hours and budget by task and deliverables. The work plan shall be submitted to the EPA PO/WAM in accordance with contract requirements.

This task also includes contract management such as communications between EPA Contracting Officer Representatives and their respective contractor counterparts. These communications would concern the progress made on the work assignment tasks and coordination of activities to facilitate optimal contractor performance.

The contractor shall provide electronic copies of the monthly progress reports to the WAM and PO. Each progress report shall describe the technical work and expenditures for the same time period as the corresponding invoice. The reports shall list by task the amount of work completed and include a table of hours by personnel for each task. The reports also shall identify any problems or difficulties. The contractor shall inform the EPA CO, PO and WAM in writing when 50%, 75%, and 90% of the allocated hours or dollars have been expended.

In addition to the monthly progress reports, the contractor shall prepare monthly and mid-monthly status summaries to the WAM and EPA PO. The monthly and mid-monthly status reports shall list the following information by task: summaries of costs and LOE expended for the reporting period; a table of hours by personnel for each task; and the cumulative hours (LOE) and dollars (and the percentage of each) expended for each task. The mid-monthly and monthly summaries of costs and expenditures LOE shall be provided prior to the progress report. The contractor shall email copies to the EPA PO, WAM, and Alternate WAM.

| TASK 1 DELIVERABLES | DEADLINES |
|---|---|
| Work Plan | In accordance with contract requirements |
| Progress Reports | monthly |
| Work assignment summaries | mid-monthly and monthly |

**Task 2: Quality Assurance**

Quality Assurance Project Plans are required under the Agency's Quality Assurance Policy CIO-2105, formerly EPA Order 5360.1A2 and implementing guidance CIO-2105-P-01-0. All projects that involve the generation, collection, analysis and use of environmental data shall have an approved QAPP prior to the commencement of the work.

*QA Project Plan Requirements*

EPA policy requires that an approved Quality Assurance Project Plan (QAPP) be in place before any work begins that involves the collection, generation, evaluation, analysis or use of environmental data. A programmatic QAPP will be put in place at the contract level; the contractor shall follow the agreed upon programmatic QAPP throughout the course of this work assignment. This work assignment is a continuation of work previously performed by the contractor under WA 8-37, WA 8-38, and WA 9-38, and several QAPPs were already prepared and approved by EPA to support work performed for these projects. The contractor shall adhere to these existing QAPPs, and update/modify them as described below. These QAPP's are included as appendices to this Work Assignment, and they include:

- Quality Assurance Project Plan for the Review and Data Entry of the Engineering Portions of the Coalbed Methane Questionnaire
- Quality Assurance Project Plan for the Coalbed Methane Existing Data Collection
- Quality Assurance Project Plan for the Coalbed Methane Site Visit Program
- Quality Assurance Project Plan for the Shale Gas Extraction Rulemaking

This work assignment includes work to support various Steps in the *Effluent Guidelines Development Process* flowchart that were not included in the precursors to this Work Assignment. To ensure that all activities performed under this work assignment are compliant with EPA's quality system requirements, the Contractor shall adhere to the previously approved QAPPs ***and***:

- The Contractor shall review the previously approved QAPP to verify that the QAPP adequately documents how quality assurance (QA) and quality control (QC) shall be applied to all applicable activities to be performed under this work assignment, including the new steps in the effluent guidelines development process. As part of this review, the Contractor

shall also verify that existing QAPP content (e.g., organizational charts, roles and responsibilities, QA/QC procedures, checklists, SOPs, etc.) are still appropriate for the work to be performed under this work assignment for previously identified steps in the effluent guidelines process that shall continue to be supported under this work assignment. In addition, the contractor shall verify that the QAPP:

- Addresses all activities involving the **generation** (including field studies, laboratory studies, and modeling output), **collection** (including surveys, literature searches, and third party data), **evaluation** (including data inspection, review, assessment, and validation), **analysis** (including statistical, engineering, and economic analysis and testing, evaluation, and validation of methods and models) **and use of data** to support EPA decisions, regulations, policy, publications or tools (including effluent guidelines, methods, criteria, standards, environmental assessments, and models, tools, or reports disseminated by EPA to assist other organizations in implementing environmental programs). Examples of data include, but are not limited to, wastewater sample analysis results, flow measurements or data, facility questionnaire data, economic data, use of models, secondary data (including sources and the acceptance criteria), any software and database management requirements and any other relevant work that might affect the quality of the data. Note that QAPPs are also required for the development or revision of models and software that support the generation, collection, evaluation, analysis or use of data. For example, when existing models are used as a tool to generate or evaluate data, the project QAPP shall describe the model, how it shall be used, and how the model output shall be evaluated to ensure it meets the overall quality objectives for the project. However, development or revision of new models also shall be supported by a QAPP that describes the objectives for the model, the quality criteria that shall be applied to the model, and the procedures for evaluating whether the model meets those criteria.
- Provides enough detail to clearly describe objectives of the project supported by the work assignment; the type of data to be collected, generated, or used under this work assignment to support the project objectives; the quality objectives needed to ensure that these shall support the project objectives; and the quality assurance and quality control activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.
- Includes specific performance criteria and measures that shall be used to verify that data generated, collected or used in this work assignment meet those criteria. If a database or other electronic tool (e.g., model, spreadsheet, etc.) shall be created for the project, the QAPP shall describe how the database or electronic tool shall be documented (e.g., data element dictionary, user manual, SOP, or other means appropriate for the project), the controls to ensure accurate data entry (when data from another source are manually entered into the database), data transfer (when data are transferred from one electronic medium to another), or data merging (when data from multiple databases or electronic media are merged into a single database).
- Explicitly references tools, such as SOPs, checklists, and guidelines that the contractor shall use in the project to document data quality. The QAPP shall include the tools as attachments for EPA's review and acceptance.

- Addresses the following "general questions that are applicable to all QAPPs that support EAD effluent guidelines projects":
  - What is the objective/goal of this effort?
  - What are the roles and responsibilities of staff who shall support this project, and how to they relate to the specific key steps
  - What training and competency requirements are necessary for key personnel that shall support the project?
  - If models shall be used to support the project, what are these models, why have they been selected, and how shall they be validated, documented, and used?
  - What are the SOPs, tools and checklists that shall be used?
- Addresses the all questions related to applicable steps from the *Effluent Guidelines Development Process* flowchart that was not included in the precursors to this Work Assignment.

- If **minor** changes are needed to the existing QAPP, the Contractor shall submit a revised QAPP to EPA prior to commencing work on related tasks. This revised QAPP shall include a version history page that summarizes the changes made. The Contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA shall review the revised QAPP and provide the Contractor with written approval or comments within 15 days of receiving the Contractor's submission. The Contractor shall revise the submitted QAPP within 7 days of receipt, unless otherwise instructed by the WAM.
- If major changes are needed to the existing QAPP, the EPA shall submit a revised QAPP to the contractor. The contractor shall review the revised QAPP and provide EPA with comments within 15 days of receiving the submission. EPA shall revise the submitted QAPP as necessary.
- Supplemental QAPPs or SOPs/checklists will be needed for work that is not covered under the previously QAPPs. The contractor shall submit appropriate supplemental quality assurance documents prior to delivering work on those components of the project.
- **Under no circumstances shall work that involves the generation, collection, evaluation, analysis, or use of environmental data be performed without an approved QAPP in place 50 days after submission of the Contractor's work plan.**
- Under no circumstances shall field sampling or laboratory analysis activities be conducted prior to receipt of an approved work plan.
- Any non-sampling/non-analytical work that involves the generation, collection, evaluation, analysis, or use of environmental data that is initiated prior to approval of the Contractor's QAPP shall be performed in accordance with the approved QAPP. (The QAPP requirements shall be applied retroactively to this period that lasts no more than 50 days from submission of the Contractor's work plan).

*Data Quality Act/Information Quality Guidelines Requirements*

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/data reproducibility requirements, EPA plans to include QAPPs as part of any rulemaking record documentation to be made available to the public. The Contractor may claim information in QAPPs as confidential; if the Contractor chooses to do so, the Contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket or record), and the unsanitized version shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information. EPA's Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the Contractors should indicate which results were obtained using the tools (SOPs, checklists, and guidelines) that the Contractor designates as confidential so that the WAM can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the WAM, the Contractors may be requested to prepare pre-dissemination review checklist as described in Section 5.5 of the Office of Water Quality Management Plan, February 2009. If this is required, the WAM shall notify the Contractor through written technical direction.

*Additional QA Documentation Required*

In addition to the QAPP requirements described above, all major deliverables (e.g., Technical Support Documents, Study Reports, Study Plans, etc.) produced by the Contractor under this work assignments shall include a discussion of the QA/QC activities that were or shall be performed to support the deliverable. For example, a Technical Support Document or Study Report shall include a clear discussion of the quality management strategies that were employed to control and document the quality of data generated and used.

The contractor also shall provide EPA with monthly reports of QA activities performed during implementation of this work assignment. These monthly QA reports shall identify QA activities performed to support implementation of this work assignment, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the contractor may include this as a part of the contract-required monthly financial/technical progress report.

**Deliverables and schedule for QA Tasks**

| TASK 2 DELIVERABLES | DEADLINES |
|---|---|
| Revision to existing QAPP(s) and related attachments, addressing minor changes | Prior to commencing work on tasks that are covered by the subject QAPP |
| Comments on the revised QAPPs provided by EPA (or signed revised QAPPs if no comments provided) | 15 days after receipt of EPA QAPP |
| Signed copy of the existing QAPPs | Within 50 days of submission of Contractors work plan |
| Supplemental QAPP(s)s (and/or related supporting materials), for tasks not covered under existing QAPPs | Prior to delivering work performed under the subject task |
| Revised and signed Supplemental QAPP(s) | Within 15 days of receiving comments from EPA |
| QA Reports | Monthly (may be included in the Contractor's monthly progress report) |

**Task 3: Confidential Business Information**

During the course of the work assignment, the contractor shall be accessing and evaluating CBI. As such, the contractor shall adhere to EPA's CBI policy and procedures as described in the contract performance work statement, Section 3.0, for all tasks in this WA, as applicable. The contractor shall obtain CBI security clearance to use CBI information as outlined in Section 3.0 of Contract EP-C-12-021.The contractor shall utilize CBI information in accordance with contract requirements and limitations to include using its most recent "Security Plan for Handling Confidential Business Information under the Clean Water Act." The contractor shall also utilize CBI information in accordance with contract requirements and limitations, including the TSCA CBI security plan as required.

| TASK 3 DELIVERABLES | DEADLINES |
|---|---|
| A CBI program in compliance with the requirements of contract EP-C-12-021 and the requirements of the contractor's CBI Plan. | Ongoing |

**Task 4: Site Visits**

The contractor shall provide technical support for site visits. This support includes identifying candidate facilities for site visits, arranging site visit logistics, accompanying EPA staff on site visits, and preparing site visit reports. The contractor shall provide a draft site visit report to the WAM after each trip. The due date will be no later than 14 days after the site visit. For planning purposes the contractor shall assume turnaround times for the draft site visit reports to be between 14-21 days. For planning purposes the contractor may assume approximately two trips to the Marcellus basin, where EPA anticipates visiting as many as four different well operators and/or flowback treatment facilities; and two trips to basins in the west (assume Colorado and Oklahoma for the cost estimate) where EPA anticipates visiting with as many as eight different operators and/or facilities. For planning purposes assume each trip to the Marcellus shall likely be for three days and each trip out west will be for five days, and include meeting with multiple entities.

**Note:** All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, shall be obtained by the EPA Project Officer as needed and provided to the Contracting Officer. Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the Project Officer.

| **TASK 4: Deliverables** | **DEADLINES** |
|---|---|
| Provide EPA with draft site visit reports | No later than 21 days after site visit. |
| Revise draft site visit reports | No later than 7 days after receiving comments on the draft site visit report from the WAM |

**Task 5: General Technical Support**

Using information provided by the WAM, along with information gathered or developed by the contractor, the contractor shall assemble information, create and/or modify documents and perform analyses related to unconventional oil and gas operations as directed by the WAM through written technical direction. The tasks may include work such as support in preparing or gathering data for presentations at conferences, summarizing data to brief management, analyzing data, attending meetings or preparing materials and participating in meetings, conferences and workshops to support EPA's outreach activities to the public and industry. These materials may include reports, brochures, or other presentation materials. For purposes of preparing a work plan, the contractor shall assume there shall be approximately twenty (20) written technical directives requiring quick turn-around.

| TASK 5: DELIVERABLES | DEADLINES |
|---|---|
| General technical support (as above) | 2 days after receiving technical direction, or as specified in technical direction, from the WAM |

**Task 6: Development Document Support**

Upon technical direction the contractor shall provide a draft outline of the table of contents for the Development Document. At a minimum, the table of contents shall include sections on treatment, industry sub-categorization, industry profiles, profiles of pollutants of concern, costs, pollutant loadings, existing regulations (federal, state, and pretreatment standards that may already be in place). After receiving the draft table of contents, EPA shall provide the contractor comments on the table of contents, which the contractor shall respond to within 7 days. Also upon technical direction the contractor shall draft sections of the Development Document. Revised Development Document sections may also be requested by technical direction (for planning purposes, assume one round of revisions for each section). After written comments have been provided by EPA and addressed, the contractor shall be responsible for compiling the Draft Development Document.

| TASK 6: DELIVERABLES | DEADLINE |
|---|---|
| Draft Development Document Table of Contents | Within 5 days of receiving technical direction |
| Revised Development Document Table of Contents | Within 2 days of receiving comments on draft |
| Draft Development Document Sections | Within 21 days of receiving technical direction for each section (section deliverables will be staggered) |
| Revised Development Document Sections | Within 14 days of receiving comments on draft sections |
| Compiled Draft Development Document | Within 14 days of receiving comments on all draft sections |

**Task 7: Record Support**

The contractor shall assemble and maintain a record of all documents relevant to the rulemaking proceedings. The contractor shall request authorization from EPA to contact the Water Docket and enter information into FDMS. When authorization is received, the contractor shall contact the Office of Water Docket to ensure that the record will meet the dockets requirements

including any electronic docket requirements. This includes preparation of electronic versions of documents for the Agency's electronic docket system. The index of rulemaking record materials shall be submitted to the EPA WAM quarterly. The record documents and index are to be delivered to the EPA WAM upon completion of the Work Assignment or when directed by the EPA WAM in writing.

| **TASK 7: DELIVERABLES** | **DEADLINE** |
|---|---|
| Maintain both the paper and the electronic records | Ongoing throughout the period of performance |
| Submit index of record materials to EPA WAM | Quarterly (each due on the 15th of November, February, May and August respectively) |
| Submit record documents and index to EPA WAM | Upon completion of the Work Assignment or written technical direction from the EPA WAM before the completion of the WA. |

**Task 8: Loadings and Cost Estimates**

Under the previous contract, EPA and the previous contractor began development of cost and load analysis methodologies, including new source costs and loads, baseline costs and loads, and incremental costs and loads for various wastewater management options.

The contractor will take these previously developed methodologies and augment them with additional data and revise assumptions as compiled during future industry outreach, literature reviews, and other data sources deemed appropriate by the EPA WAM. The contractor shall use this revised analysis to document the costs and loading reductions of complying with the regulatory options under consideration upon direction from the EPA WAM. The contractor shall document its revised loadings methodologies, including assumptions, and calculations.

The contractor will present the results from the cost and loadings analyses to EPA. The contractor may perform several iterations of these analyses (assume five additional iterations for the purpose of this cost estimate). With each new analysis run, the contractor shall provide EPA with documentation of changes that were made to the analysis/methodologies and assumptions. After the analysis is considered complete (or complete for this performance period), the contractor shall provide a memorandum describing the analysis and final assumptions that the analysis is based on.

| **TASK 8: DELIVERABLES** | **DEADLINE** |
|---|---|
| Documentation of updated analysis methodology and assumptions, based on new information since original analysis development | Within 14 days after technical direction |

| | |
|---|---|
| Initial analysis run - Draft Costing and Loading Analysis | Within 14 days after technical direction |
| Additional analysis runs - Revised costing and loading analysis, with documentation of updated methodologies and assumptions, based on comments from EPA on the draft (or previous) analysis (assume 5 iterations) | Within 7 days after technical direction |
| Documentation memo(s) on completed costing and loading analyses | Within 14 days after technical direction |

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United States Environmental Protection Agency
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Contractor: EASTERN RESEARCH GROUP, INC.

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### Authorized Work Assignment Ceiling

| | Contract Period | Cost/Fee | LOE |
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| | 09/26/2012 To 09/25/2013 | $0.00 | |
| This Action: | | $389,584.85 | |
| Total: | | $389,584.85 | |

### Work Plan / Cost Estimate Approvals

| | | Cost/Fee | LOE |
|---|---|---|---|
| Contractor WP Dated: | 10/26/2012 | $486,683.00 | 5,100 |
| Cumulative Approved: | | $486,683.00 | 5,100 |

| | | |
|---|---|---|
| Work Assignment Manager Name: Lisa Biddle<br>(Signature) (Date) | Branch/Mail Code: | |
| | Phone Number: | 202-566-0350 |
| | FAX Number: | |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code: | |
| | Phone Number: | 202-566-1040 |
| | FAX Number: | |
| Other Agency Official Name<br>(Signature) (Date) | Branch/Mail Code: | |
| | Phone Number: | |
| | FAX Number: | |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code: | |
| | Phone Number: | 513-487-2352 |
| | FAX Number: | |

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**Contract EP-C-12-021**
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**Title:** Unconventional Oil & Gas Engineering Support

**Work Assignment Manager (WAM):** Lisa Biddle

**Alternate Work Assignment Manager:** Brian D'Amico

**Alternate Work Assignment Manager:** Ahmar Siddiqui

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## I- Purpose

The purpose of this work assignment is to provide contractor tasks to support EPA's development of effluent limitations guidelines and standards (ELGs) for the unconventional oil and gas industry.

## II- Introduction

The Clean Water Act directs EPA to develop national regulations placing limits on the pollutants that are discharged by categories of industry to rivers and streams or to sewage treatment plants. This work assignment supports EPA's development of effluent limitations guidelines and standards (collectively referred to as ELGs) for the oil and gas extraction point source category (40 CFR Part 435).

EPA is developing a proposed rule to amend the Effluent Limitation Guidelines (ELGs) for the Oil and Gas Extraction Category, 40 CFR Part 435. The rule is scheduled for publication in 2014.

EPA published a report on the coalbed methane extraction industry as part of its 2010 ELG plan. In the plan, EPA stated that was initiating two separate rulemakings to revise Part 435 to address discharges from coalbed methane and from shale gas extraction. The Agency had decided that separate rulemaking actions were appropriate for two main reasons: 1) shale gas is extracted primarily through a combination of horizontal drilling and hydraulic fracturing and coalbed methane is not; and 2) EPA was further ahead in its data collection activities for coalbed methane than for shale gas extraction.

Since 2010, EPA learned that the economics of extracting oil and gas from one source is intrinsically linked with the economics of extraction from other available sources. For example, increased shale gas production over the last year led to an overabundance of supply, which led to a decrease in gas prices that not only affects shale gas extraction but also coalbed methane. The

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## III- General Work Assignment Requirements (PWS Section 3.0)

### Deliverable Formatting and Terminology

Throughout this work assignment, the contractor shall provide draft and final reports to EPA in electronic format, with hard copy format also provided when directed by the work assignment manager. The contractor shall discuss the computer file formats to be used for word processing, spreadsheet, database and graphics with the EPA WAM prior to file preparation. The EPA WAM will identify for the contractor which documents will be posted on EPA's Effluent Guidelines webpage. These documents posted to the Effluent Guidelines webpage must be Section 508 compliant.1

### Travel

Non-local travel by the contractor employees and/or subcontractors will be required to support the scope of this work assignment (e.g., site visits and public meetings). The contractor shall provide specific travel details and costs in a request for travel approval by the EPA WAM and the EPA Project Officer (PO) before each trip occurs (as specified by the contract per clause H.32).

### Confidential Business Information

The contractor shall, at all times, adhere to Confidential Business Information (CBI) procedures when handling industry information. The contractor shall manage all reports, documents, and other materials and all draft documents developed under this work assignment in accordance with the procedures set forth in the "Security Plan for Handling Confidential Business Information Under the Clean Water Act" (September 2002) or its successor approved plans.

### Identification as Contracting Staff

To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and visiting field sites. When speaking with the public the contractor should refer all interpretations of policy to the EPA WAM.

1 See http://www.epa.gov/epahome/accessibility.htm.

Limitation of Contractor Activities

The contractor shall submit drafts of all deliverables to the EPA WAM for review prior to submission of the final product. The contractor shall incorporate all EPA WAM comments into all final deliverables, unless otherwise agreed upon by the EPA WAM. The contractor will adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), PO, and WAM.

Deliverable Due Dates

For the purpose of developing this work plan, the contractor shall assume the deliverable due dates in the tables for each task presented further. Major technical deliverables shall be subject to internal contractor peer review by an expert(s) not directly involved in the mainstream Work Assignment tasks. Deliverables will be prepared with proper adherence to EPA style and format requirements.

## IV- Tasks

### Task 1: Program Management –

The contractor shall prepare and submit a detailed work plan that outlines the approach and methodology that shall be used to perform the tasks identified in this Work Assignment. The work plan shall specify the work to be done for each task, and the allocation of personnel, hours and budget by task and deliverables. The work plan shall be submitted to the EPA PO/WAM in accordance with contract requirements.

This task also includes contract management such as communications between EPA Contracting Officer Representatives and their respective contractor counterparts. These communications would concern the progress made on the work assignment tasks and coordination of activities to facilitate optimal contractor performance.

The contractor shall provide electronic copies of the monthly progress reports to the WAM and PO. Each progress report shall describe the technical work and expenditures for the same time period as the corresponding invoice. The reports shall list by task the amount of work completed and include a table of hours by personnel for each task. The reports also shall identify any problems or difficulties. The contractor shall inform the EPA CO, PO and WAM in writing when 50%, 75%, and 90% of the allocated hours or dollars have been expended.

In addition to the monthly progress reports, the contractor shall prepare monthly and mid-monthly status summaries to the WAM and EPA PO. The monthly and mid-monthly status reports shall list the following information by task: summaries of costs and LOE expended for the reporting period; a table of hours by personnel for each task; and the cumulative hours (LOE) and dollars (and the percentage of each) expended for each task. The mid-monthly and monthly summaries of costs and expenditures LOE shall be provided prior to the progress report. The contractor shall email copies to the EPA PO, WAM, and Alternate WAM.

| TASK 1 DELIVERABLES | DEADLINES |
|---|---|
| Work Plan | In accordance with contract requirements |
| Progress Reports | monthly |
| Work assignment summaries | mid-monthly and monthly |

**Task 2: Quality Assurance**

Quality Assurance Project Plans are required under the Agency's Quality Assurance Policy CIO-2105, formerly EPA Order 5360.1A2 and implementing guidance CIO-2105-P-01-0. All projects that involve the generation, collection, analysis and use of environmental data shall have an approved QAPP prior to the commencement of the work.

*QA Project Plan Requirements*

EPA policy requires that an approved Quality Assurance Project Plan (QAPP) be in place before any work begins that involves the collection, generation, evaluation, analysis or use of environmental data. A programmatic QAPP will be put in place at the contract level; the contractor shall follow the agreed upon programmatic QAPP throughout the course of this work assignment. This work assignment is a continuation of work previously performed by the contractor under WA 8-37, WA 8-38, and WA 9-38, and several QAPPs were already prepared and approved by EPA to support work performed for these projects. The contractor shall adhere to these existing QAPPs, and update/modify them as described below. These QAPP's are included as appendices to this Work Assignment, and they include:

- Quality Assurance Project Plan for the Review and Data Entry of the Engineering Portions of the Coalbed Methane Questionnaire
- Quality Assurance Project Plan for the Coalbed Methane Existing Data Collection
- Quality Assurance Project Plan for the Coalbed Methane Site Visit Program
- Quality Assurance Project Plan for the Shale Gas Extraction Rulemaking

This work assignment includes work to support various Steps in the *Effluent Guidelines Development Process* flowchart that were not included in the precursors to this Work Assignment. To ensure that all activities performed under this work assignment are compliant with EPA's quality system requirements, the Contractor shall adhere to the previously approved QAPPs ***and***:

- The Contractor shall review the previously approved QAPP to verify that the QAPP adequately documents how quality assurance (QA) and quality control (QC) shall be applied to all applicable activities to be performed under this work assignment, including the new steps in the effluent guidelines development process. As part of this review, the Contractor

shall also verify that existing QAPP content (e.g., organizational charts, roles and responsibilities, QA/QC procedures, checklists, SOPs, etc.) are still appropriate for the work to be performed under this work assignment for previously identified steps in the effluent guidelines process that shall continue to be supported under this work assignment. In addition, the contractor shall verify that the QAPP:

- Addresses all activities involving the **generation** (including field studies, laboratory studies, and modeling output), **collection** (including surveys, literature searches, and third party data), **evaluation** (including data inspection, review, assessment, and validation), **analysis** (including statistical, engineering, and economic analysis and testing, evaluation, and validation of methods and models) **and use of data** to support EPA decisions, regulations, policy, publications or tools (including effluent guidelines, methods, criteria, standards, environmental assessments, and models, tools, or reports disseminated by EPA to assist other organizations in implementing environmental programs). Examples of data include, but are not limited to, wastewater sample analysis results, flow measurements or data, facility questionnaire data, economic data, use of models, secondary data (including sources and the acceptance criteria), any software and database management requirements and any other relevant work that might affect the quality of the data. Note that QAPPs are also required for the development or revision of models and software that support the generation, collection, evaluation, analysis or use of data. For example, when existing models are used as a tool to generate or evaluate data, the project QAPP shall describe the model, how it shall be used, and how the model output shall be evaluated to ensure it meets the overall quality objectives for the project. However, development or revision of new models also shall be supported by a QAPP that describes the objectives for the model, the quality criteria that shall be applied to the model, and the procedures for evaluating whether the model meets those criteria.
- Provides enough detail to clearly describe objectives of the project supported by the work assignment; the type of data to be collected, generated, or used under this work assignment to support the project objectives; the quality objectives needed to ensure that these shall support the project objectives; and the quality assurance and quality control activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.
- Includes specific performance criteria and measures that shall be used to verify that data generated, collected or used in this work assignment meet those criteria. If a database or other electronic tool (e.g., model, spreadsheet, etc.) shall be created for the project, the QAPP shall describe how the database or electronic tool shall be documented (e.g., data element dictionary, user manual, SOP, or other means appropriate for the project), the controls to ensure accurate data entry (when data from another source are manually entered into the database), data transfer (when data are transferred from one electronic medium to another), or data merging (when data from multiple databases or electronic media are merged into a single database).
- Explicitly references tools, such as SOPs, checklists, and guidelines that the contractor shall use in the project to document data quality. The QAPP shall include the tools as attachments for EPA's review and acceptance.

- Addresses the following "general questions that are applicable to all QAPPs that support EAD effluent guidelines projects":
  - What is the objective/goal of this effort?
  - What are the roles and responsibilities of staff who shall support this project, and how to they relate to the specific key steps
  - What training and competency requirements are necessary for key personnel that shall support the project?
  - If models shall be used to support the project, what are these models, why have they been selected, and how shall they be validated, documented, and used?
  - What are the SOPs, tools and checklists that shall be used?
- Addresses the all questions related to applicable steps from the *Effluent Guidelines Development Process* flowchart that was not included in the precursors to this Work Assignment.

- If **minor** changes are needed to the existing QAPP, the Contractor shall submit a revised QAPP to EPA prior to commencing work on related tasks. This revised QAPP shall include a version history page that summarizes the changes made. The Contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA shall review the revised QAPP and provide the Contractor with written approval or comments within 15 days of receiving the Contractor's submission. The Contractor shall revise the submitted QAPP within 7 days of receipt, unless otherwise instructed by the WAM.
- If major changes are needed to the existing QAPP, the EPA shall submit a revised QAPP to the contractor. The contractor shall review the revised QAPP and provide EPA with comments within 15 days of receiving the submission. EPA shall revise the submitted QAPP as necessary.
- Supplemental QAPPs or SOPs/checklists will be needed for work that is not covered under the previously QAPPs. The contractor shall submit appropriate supplemental quality assurance documents prior to delivering work on those components of the project.
- **Under no circumstances shall work that involves the generation, collection, evaluation, analysis, or use of environmental data be performed without an approved QAPP in place 50 days after submission of the Contractor's work plan.**
- Under no circumstances shall field sampling or laboratory analysis activities be conducted prior to receipt of an approved work plan.
- Any non-sampling/non-analytical work that involves the generation, collection, evaluation, analysis, or use of environmental data that is initiated prior to approval of the Contractor's QAPP shall be performed in accordance with the approved QAPP. (The QAPP requirements shall be applied retroactively to this period that lasts no more than 50 days from submission of the Contractor's work plan).

*Data Quality Act/Information Quality Guidelines Requirements*

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/data reproducibility requirements, EPA plans to include QAPPs as part of any rulemaking record documentation to be made available to the public. The Contractor may claim information in QAPPs as confidential; if the Contractor chooses to do so, the Contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket or record), and the unsanitized version shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information. EPA's Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the Contractors should indicate which results were obtained using the tools (SOPs, checklists, and guidelines) that the Contractor designates as confidential so that the WAM can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the WAM, the Contractors may be requested to prepare pre-dissemination review checklist as described in Section 5.5 of the Office of Water Quality Management Plan, February 2009. If this is required, the WAM shall notify the Contractor through written technical direction.

*Additional QA Documentation Required*

In addition to the QAPP requirements described above, all major deliverables (e.g., Technical Support Documents, Study Reports, Study Plans, etc.) produced by the Contractor under this work assignments shall include a discussion of the QA/QC activities that were or shall be performed to support the deliverable. For example, a Technical Support Document or Study Report shall include a clear discussion of the quality management strategies that were employed to control and document the quality of data generated and used.

The contractor also shall provide EPA with monthly reports of QA activities performed during implementation of this work assignment. These monthly QA reports shall identify QA activities performed to support implementation of this work assignment, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the contractor may include this as a part of the contract-required monthly financial/technical progress report.

**Deliverables and schedule for QA Tasks**

| TASK 2 DELIVERABLES | DEADLINES |
|---|---|
| Revision to existing QAPP(s) and related attachments, addressing minor changes | Prior to commencing work on tasks that are covered by the subject QAPP |
| Comments on the revised QAPPs provided by EPA (or signed revised QAPPs if no comments provided) | 15 days after receipt of EPA QAPP |
| Signed copy of the existing QAPPs | Within 50 days of submission of Contractors work plan |
| Supplemental QAPP(s)s (and/or related supporting materials), for tasks not covered under existing QAPPs | Prior to delivering work performed under the subject task |
| Revised and signed Supplemental QAPP(s) | Within 15 days of receiving comments from EPA |
| QA Reports | Monthly (may be included in the Contractor's monthly progress report) |

**Task 3: Confidential Business Information**

During the course of the work assignment, the contractor shall be accessing and evaluating CBI. As such, the contractor shall adhere to EPA's CBI policy and procedures as described in the contract performance work statement, Section 3.0, for all tasks in this WA, as applicable. The contractor shall obtain CBI security clearance to use CBI information as outlined in Section 3.0 of Contract EP-C-12-021.The contractor shall utilize CBI information in accordance with contract requirements and limitations to include using its most recent "Security Plan for Handling Confidential Business Information under the Clean Water Act." The contractor shall also utilize CBI information in accordance with contract requirements and limitations, including the TSCA CBI security plan as required.

| TASK 3 DELIVERABLES | DEADLINES |
|---|---|
| A CBI program in compliance with the requirements of contract EP-C-12-021 and the requirements of the contractor's CBI Plan. | Ongoing |

**Task 4: Site Visits**

The contractor shall provide technical support for site visits. This support includes identifying candidate facilities for site visits, arranging site visit logistics, accompanying EPA staff on site visits, and preparing site visit reports. The contractor shall provide a draft site visit report to the WAM after each trip. The due date will be no later than 14 days after the site visit. For planning purposes the contractor shall assume turnaround times for the draft site visit reports to be between 14-21 days. For planning purposes the contractor may assume approximately two trips to the Marcellus basin, where EPA anticipates visiting as many as four different well operators and/or flowback treatment facilities; and two trips to basins in the west (assume Colorado and Oklahoma for the cost estimate) where EPA anticipates visiting with as many as eight different operators and/or facilities. For planning purposes assume each trip to the Marcellus shall likely be for three days and each trip out west will be for five days, and include meeting with multiple entities.

**Note:** All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, shall be obtained by the EPA Project Officer as needed and provided to the Contracting Officer. Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the Project Officer.

| **TASK 4: Deliverables** | **DEADLINES** |
|---|---|
| Provide EPA with draft site visit reports | No later than 21 days after site visit. |
| Revise draft site visit reports | No later than 7 days after receiving comments on the draft site visit report from the WAM |

**Task 5: General Technical Support**

Using information provided by the WAM, along with information gathered or developed by the contractor, the contractor shall assemble information, create and/or modify documents and perform analyses related to unconventional oil and gas operations as directed by the WAM through written technical direction. The tasks may include work such as support in preparing or gathering data for presentations at conferences, summarizing data to brief management, analyzing data, attending meetings or preparing materials and participating in meetings, conferences and workshops to support EPA's outreach activities to the public and industry. These materials may include reports, brochures, or other presentation materials. For purposes of preparing a work plan, the contractor shall assume there shall be approximately twenty (20) written technical directives requiring quick turn-around.

| TASK 5: DELIVERABLES | DEADLINES |
|---|---|
| General technical support (as above) | 2 days after receiving technical direction, or as specified in technical direction, from the WAM |

**Task 6: Development Document Support**

Upon technical direction the contractor shall provide a draft outline of the table of contents for the Development Document. At a minimum, the table of contents shall include sections on treatment, industry sub-categorization, industry profiles, profiles of pollutants of concern, costs, pollutant loadings, existing regulations (federal, state, and pretreatment standards that may already be in place). After receiving the draft table of contents, EPA shall provide the contractor comments on the table of contents, which the contractor shall respond to within 7 days. Also upon technical direction the contractor shall draft sections of the Development Document. Revised Development Document sections may also be requested by technical direction (for planning purposes, assume one round of revisions for each section). After written comments have been provided by EPA and addressed, the contractor shall be responsible for compiling the Draft Development Document.

| TASK 6: DELIVERABLES | DEADLINE |
|---|---|
| Draft Development Document Table of Contents | Within 5 days of receiving technical direction |
| Revised Development Document Table of Contents | Within 2 days of receiving comments on draft |
| Draft Development Document Sections | Within 21 days of receiving technical direction for each section (section deliverables will be staggered) |
| Revised Development Document Sections | Within 14 days of receiving comments on draft sections |
| Compiled Draft Development Document | Within 14 days of receiving comments on all draft sections |

**Task 7: Record Support**

The contractor shall assemble and maintain a record of all documents relevant to the rulemaking proceedings. The contractor shall request authorization from EPA to contact the Water Docket and enter information into FDMS. When authorization is received, the contractor shall contact the Office of Water Docket to ensure that the record will meet the dockets requirements

including any electronic docket requirements. This includes preparation of electronic versions of documents for the Agency's electronic docket system. The index of rulemaking record materials shall be submitted to the EPA WAM quarterly. The record documents and index are to be delivered to the EPA WAM upon completion of the Work Assignment or when directed by the EPA WAM in writing.

| **TASK 7: DELIVERABLES** | **DEADLINE** |
|---|---|
| Maintain both the paper and the electronic records | Ongoing throughout the period of performance |
| Submit index of record materials to EPA WAM | Quarterly (each due on the 15th of November, February, May and August respectively) |
| Submit record documents and index to EPA WAM | Upon completion of the Work Assignment or written technical direction from the EPA WAM before the completion of the WA. |

**Task 8: Loadings and Cost Estimates**

Under the previous contract, EPA and the previous contractor began development of cost and load analysis methodologies, including new source costs and loads, baseline costs and loads, and incremental costs and loads for various wastewater management options.

The contractor will take these previously developed methodologies and augment them with additional data and revise assumptions as compiled during future industry outreach, literature reviews, and other data sources deemed appropriate by the EPA WAM. The contractor shall use this revised analysis to document the costs and loading reductions of complying with the regulatory options under consideration upon direction from the EPA WAM. The contractor shall document its revised loadings methodologies, including assumptions, and calculations.

The contractor will present the results from the cost and loadings analyses to EPA. The contractor may perform several iterations of these analyses (assume five additional iterations for the purpose of this cost estimate). With each new analysis run, the contractor shall provide EPA with documentation of changes that were made to the analysis/methodologies and assumptions. After the analysis is considered complete (or complete for this performance period), the contractor shall provide a memorandum describing the analysis and final assumptions that the analysis is based on.

| **TASK 8: DELIVERABLES** | **DEADLINE** |
|---|---|
| Documentation of updated analysis methodology and assumptions, based on new information since original analysis development | Within 14 days after technical direction |

| | |
|---|---|
| Initial analysis run - Draft Costing and Loading Analysis | Within 14 days after technical direction |
| Additional analysis runs - Revised costing and loading analysis, with documentation of updated methodologies and assumptions, based on comments from EPA on the draft (or previous) analysis (assume 5 iterations) | Within 7 days after technical direction |
| Documentation memo(s) on completed costing and loading analyses | Within 14 days after technical direction |

# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-38

☐ Other ☒ Amendment Number: 000001

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Oil & Gas Engineering Support |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/26/2012 To 09/25/2013

Comments:

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | |
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### Authorized Work Assignment Ceiling

| | Contract Period: | Cost/Fee: | LOE: |
|---|---|---|---|
| | 09/26/2012 To 09/25/2013 | | |
| This Action: | | | |
| Total: | | | |

### Work Plan / Cost Estimate Approvals

| | | |
|---|---|---|
| Contractor WP Dated: | Cost/Fee: | LOE: |
| Cumulative Approved: | Cost/Fee: | LOE: |

| | |
|---|---|
| Work Assignment Manager Name: Lisa Biddle<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-0350<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name:<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |

# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-38

☐ Other ☒ Amendment Number: 000001

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Oil & Gas Engineering Support |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☒ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/26/2012 To 09/25/2013

Comments: This Work Plan Approval incorporates Amendment 1.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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### Authorized Work Assignment Ceiling

| | Cost/Fee: | LOE: |
|---|---|---|
| Contract Period: 09/26/2012 To 09/25/2013 | $0.00 | 0 |
| This Action: | $635,418.00 | 6,298 |
| Total: | $635,418.00 | 6,298 |

### Work Plan / Cost Estimate Approvals

| | Cost/Fee: | LOE: |
|---|---|---|
| Contractor WP Dated: 03/11/2013 | $635,418.00 | 6,298 |
| Cumulative Approved: | $635,418.00 | 6,298 |

| | |
|---|---|
| Work Assignment Manager Name: Lisa Biddle<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-0350<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name:<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |

# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-40

☐ Other ☐ Amendment Number:

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Programmatic QA Project Plan |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☒ Work Assignment
- ☐ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/26/2012 To 09/25/2013

Comments:
Work shall not commence on this work assignment until September 26, 2012.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | |
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### Authorized Work Assignment Ceiling

| Contract Period: | Cost/Fee: | LOE: |
|---|---|---|
| 09/26/2012 To 09/25/2013 | | |
| This Action: | | |
| Total: | | |

### Work Plan / Cost Estimate Approvals

| | Cost/Fee: | LOE: |
|---|---|---|
| Contractor WP Dated: | | |
| Cumulative Approved: | | |

| | |
|---|---|
| Work Assignment Manager Name: Marion Kelly<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1045<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name:<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |

**Performance Work Statement**
**Contract EP-C-12-021**
**Work Assignment 0-40**

**Title:** Contract-Level Programmatic Quality Assurance Project Plan

**Work Assignment Manager (WAM):** Marion Kelly
U.S. EPA/OW/OST/EAD (4303T)
EPA West, Room 6233D
1200 Pennsylvania Ave., N.W.
Washington, DC 20460
Phone: 202-566-1045
FAX: 202-566-1053
E-mail: kelly.marion@epa.gov

**Task 3 Manager:** Ahmar Siddiqui
U.S. EPA/OW/OST/EAD (4303T)
EPA West, Room 6231S
1200 Pennsylvania Ave., N.W.
Washington, DC 20460
Phone: 202-566-1044
FAX: 202-566-1053
E-mail: siddiqui.ahmar@epa.gov

**Period of Performance:** September 26, 2012 through September 25, 2013

Work Assignment 0-40, Contract-level Programmatic Quality Assurance Project Plan for Environmental Engineering Support for Clean Water Regulations requires the contractor to prepare a Contract-Level Programmatic Quality Assurance Project Plan to assure the quality associated with the Effluent Limitations and Guidelines program, the 304(m) program and other studies requiring engineering technical support.

Travel - EPA does not anticipate the need for non-local travel by the contractor employees and/or subcontractors to support the scope of this work assignment.

Confidential Business Information - The contractor shall, at all times, adhere to Confidential Business Information (CBI) procedures when handling industry information. The contractor shall manage all reports, documents, and other materials and all draft documents developed under this work assignment in accordance with the procedures set forth in the Office of Science and Technology Confidential Business Information (OST-CBI) Application Security Plan (June 10, 2003), or its successor approved plans. See Task 1.4 for more details.

Meetings - To avoid the perception that contractor personnel are EPA employees, contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties or visiting field sites.

Limitation of Contractor Activities - The contractor shall submit drafts of all deliverables to the WAM for review prior to submission of the final product. The contractor shall incorporate all WAM comments into all final deliverables, unless otherwise agreed upon by the WAM. The contractor shall adhere to all applicable EPA management control procedures as implemented by the Contracting Officer (CO), Project Officer (PO), and WAM.

**Task 0 – Program Management**

The Contractor shall develop a work plan describing the necessary steps and estimated hours to complete each of the tasks included in this work assignment. The work plan shall also include a list of the key personnel to participate in the work assignment. The contractor shall also estimate direct costs such as computer cost, typing, etc.

The Contractor shall prepare and deliver monthly progress reports to the WAM and PO. These reports shall list by task the amount of work completed and include a table of hours by personnel for each task. The contractor shall inform the Contracting Officer, Project Officer, and the Work Assignment Manager in writing when 50%, 75%, and 90% of the allocated hours or dollars have been expended.

| TASK 0 – DELIVERABLES | Due Date |
|---|---|
| Work Plan | In accordance with contract requirements |
| Progress Reports | TBD |

**Task 1 – Development of a Programmatic Quality Assurance Project Plan (Performance Work Statement, Section 3.0)**

## 1.1 QA Programmatic Project Plan Requirements

EPA policy requires that an approved Quality Assurance Project Plan (QAPP) be in place before commencing any work that involves the collection, generation, evaluation, analysis or use of environmental data. The work to be performed by the Contractor under this contract involves such activities. Additionally, the solicitation for this contract required a programmatic Quality Assurance Project Plan (QAPP) after the award of the contract. A programmatic QAPP is used to describe, in a single document, information that is not site or time-specific, but applies throughout the program (i.e., contract). Application-specific information is then added to the approved programmatic QAPP as that information becomes known or completely defined. This may be accomplished through supplemental QAPPs prepared to support individual work assignments issued under the contract. The programmatic QAPP shall be reviewed at least annually to ensure its content continues to be to be valid and applicable to the program over time.

***QAPP Scope:*** In order to comply with the requirements described above, the contractor shall prepare and submit a contract-level programmatic QAPP documenting how quality assurance (QA) and quality control (QC) shall be applied to the generation, collection, evaluation, analysis and use of environmental data under this contract. Examples of these items are provided in Table 1-1 below. This contract has standard activities associated with its Effluent Guidelines and section 304(m) programs that can be found at **Attachment A**, Effluent Guidelines Program Development Steps, and **Attachment B**, Revised 304m Review Methodology.

**Table 1-1. Examples of work that involves the collection, generation, evaluation, analysis, or use of environmental data.**

| Item | Examples |
|---|---|
| Data | Includes field sampling information (sample location information, flow measurements, temperature, pH, physical observations, etc.), laboratory measurements (e.g., chemical, physical, biological, radiological measurements), data collected from questionnaires, economic data, census data, and any other types of existing data (i.e., data generated for a different purpose or generated by a different organization |
| Data generation | Includes field studies, laboratory studies, and generation of modeling output |
| Data collection | Includes field surveys, questionnaire surveys, literature searches, and third party data |
| Data evaluation | Includes data inspection, review, assessment, and validation |
| Data analysis | Includes statistical, engineering, and economic analysis, and testing, evaluation, and validation of methods and models; database creation, data extraction and data manipulation |
| Data Use | Any use of data to support EPA decisions, regulations, policy, publications, or tools (including effluent guidelines, 304(m) program, standards, environmental assessments, and models, tools, or reports disseminated by EPA to assist other organizations in implementing environmental programs) |

Note that QAPPs are required for the development or revision of models and software that support the generation, collection, evaluation, analysis, or use of data. (A model is set of equations and assumptions used to predict unknown data.) When existing models are used as a tool to generate or evaluate data, the project QAPP shall describe the model, how the model will be used, and how the model's output will be evaluated to ensure it meets the overall quality objectives for the project. Development or revision of new models also shall be supported by a QAPP that describes the objectives for the model, the quality criteria that shall be applied to the model, and the procedures for evaluating whether the model meets those criteria.

***QAPP Structure and Elements.*** The Contractor shall develop a contract-wide QAPP that describes the systems and procedures the Contractor will use in performing activities related the generation, collection, evaluation, analysis, and use of data under contract number EP-C-12-021. Because this QAPP shall be prepared as a contract-level document, it is understood that the details (e.g., specific objectives, analytical methods, and/or acceptance criteria) of specific

projects shall not be known. In such instances, the contract-wide programmatic QAPP should document the Contractor's procedures for defining and documenting this information for specific projects or work assignments.

When preparing the contract-wide *programmatic QAPP*, the contractor should anticipate that other work assignments issued under this contract will require the Contractor to prepare *supplemental QAPPs* that provide specific QA strategies designed to support the objectives of the EPA projects that are supported by those work assignments. For example, if the Contractor receives a work assignment to support a specific industrial category study or a specific project (e.g., an annual 304m review), the contractor will be required to prepare a QAPP that supplements the contract-wide Programmatic QAPP by providing details regarding the specific QA/QC strategies needed to support the industrial study or 304(m) review described in the corresponding work assignment. Each of these supplemental QAPPs shall provide enough detail to clearly describe:

- Objectives of the project(s) supported by the corresponding work assignment, including typical questions that must be answered in the development of industrial effluent limitations and guidelines, or 304(m) plans in even and odd years;
- The type of data to be collected, generated, or used under the corresponding work assignments to support the project objectives, including search engines, federal databases, EPA data bases and shall include a rationale for when those databases are appropriate and what data available in each will support the project
- The quality objectives needed to ensure the data will support the project objectives; and
- The QA/QC activities to be performed to ensure that any results obtained are documented and are of the type, quality, transparency, and reproducibility needed.

EPA requirements governing the specific elements that must be addressed in a QAPP are described in *EPA Requirements for Quality Assurance Project Plans* (EPA QA/R-5, EPA/240/B-01/003, March 2001, or as updated). EPA guidance concerning these requirements is provided in *Guidance for Quality Assurance Project Plans* (EPA QA/G-5, EPA/240/R-02/009, December 2002, or as updated.) There are four basic elements to any QAPP whether the plan is at the project or activity level, or in the case of this programmatic QA plan, at the comprehensive, contract-level:

- Project Management
- Data generation and Acquisition
- Assessment and Oversight
- Data Validation and Usability.

EPA QA/R-5 and QA/G-5 describe 24 elements that expand on the 4 QA elements listed above. Depending on the contract task, work assignment, or project supported by a particular QAPP, some elements may not apply. For example, the QAPP element for "Instrument/Equipment Calibration and Frequency" would not apply to a QAPP prepared to support a literature review, but this element would apply to a QAPP that involved the use of field or laboratory instruments. Because this contract-level QAPP will address the objectives, systems, and procedures used for all types of environmental data operations to be performed under the contract, it is anticipated that all 24 QAPP elements will need to be addressed in this QAPP.

It is not necessary to address the QAPP elements in the order listed in EPA QA/R-5 and QA G-5. The Contractor may reorganize, cross-reference, or consolidate QAPP elements as necessary to improve clarity, minimize redundancy, and increase overall utility of the QAPP. In such cases, the Contractor shall provide some means of cross-referencing where in the programmatic QAPP each of the 24 QAPP elements is addressed.

When preparing the contract-level QAPP under this work assignment, the Contractor should carefully evaluate the tasks listed in the contract PWS and the standard activities associated with EAD's Effluent Guidelines and section 304(m) programs (see Attachments A and B) in order to identify the types of environmental data operations that will be performed under the contract. The programmatic QAPP must address all of these environmental data operations. In doing so, the Contractor may choose to minimize redundancy by organizing their discussions around these environmental data operations, around the PWS tasks, or around the standard activities or steps associated with EAD's effluent guidelines and Section 304(m) programs, or by some other approach. For example, if the Contractor determines that several PWS tasks involve the same environmental data operation, than it may make more sense to focus discussions around each unique environmental data operation instead of repeating the discussion for each PWS task.

***Additional Programmatic QAPP Requirements:*** The EPA Quality Manual for Environmental Programs (CIO 2105-P-01-0) requires published Agency reports containing environmental data to be accompanied by a readily-identifiable section or appendix that discusses the quality of the data and any limitations on the use of the data with respect to their originally intended application. The EPA Quality Manual further requires Agency reports to be reviewed by the QA manager (or other authorized official) before publication to ensure that an adequate discussion of QA and QC activities is included. The purpose of the review is to ensure that sufficient information is provided to enable a knowledgeable reader to determine if the technical and quality goals were met for the intended use of the data.

In support of this Agency requirement, the Contractor's programmatic QAPP for this contract must specify that (1) all major deliverables (e.g., Technical Support Documents, Study Reports, Study Plans, etc.) produced by the Contractor under this contract will include a discussion of the QA/QC activities that were or will be performed to support the deliverable, and (2) this discussion will provide a sufficient level of detail to allow the EAD QA Coordinator (or designee) to determine if the QA/QC strategies designed and implemented for the project sufficiently support the intended use of the data.

***Programmatic QAPP Schedule:*** Within 15 days after submittal of the work plan, the contractor shall prepare and submit the contract-level programmatic QAPP documenting how QA and QC shall be applied to the generation, collection, evaluation, analysis and use of environmental data under the contract.

- EPA shall review the submitted QAPP and provide the Contractor with written approval or comments within 15 days of receiving the Contractor's submission.
- The Contractor shall revise the submitted QAPP within 10 days of receipt, unless otherwise instructed by the EPA WAM.
- Under no circumstances shall work that involves the generation, collection, evaluation,

analysis, or use of environmental data be performed without an approved QAPP in place 50 days after submission of the Contractor's work plan.

- Under no circumstances shall work that involves the generation, collection, evaluation, analysis, or use of environmental data be performed without an approved QAPP in place 50 days after submission of the Contractor's work plan.
- Under no circumstances shall field sampling or laboratory analysis activities be conducted prior to receipt of an approved work plan.
- Any non-sampling/non-analytical work that involves the generation, collection, evaluation, analysis, or use of environmental data that is initiated prior to approval of the Contractor's QAPP shall be performed only at the direction of the Work Assignment Manager and in accordance with the approved QAPP. (The QAPP requirements shall be applied retroactively to this period that lasts no more than 50 days from submission of the Contractor's work plan.).

## 1.2 Data Quality Act/Information Quality Guidelines Requirements

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/ data reproducibility requirements, EPA plans to include QAPPs as part of any rulemaking record documentation to be made available to the public. The Contractor may claim information in QAPPs as confidential; if the Contractor chooses to do so, the Contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket record), and the unsanitized version shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information. EPA's Guidelines *for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency* (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the Contractors should indicate which results were obtained using the tools (SOPs, checklists, and guidelines) that the Contractor designates as confidential so that the EPA WAM can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the EPA WAM, the Contractors may be requested to prepare pre-dissemination review checklist as described in Section 5.5 of the Office of Water Quality Management Plan, February 2009. If this is required, the EPA WAM shall notify the Contractor through written technical direction.

### 1.3 - CBI Procedures

The work under Contract EP-C-12-021 requires a CBI plan. When preparing the programmatic QAPP, the contractor shall include, where appropriate, CBI procedures as they relate to the quality assurance in the overall contract. In some instances, it may be appropriate to reference sections of the CBI plan, in other situations, the contractor may have to provide more specificity. The contractor should refer to EPA's CBI policy and procedures as described in the contract PWS, Section 3.0. The contractor shall include in the programmatic QAPP the procedures personnel are required to follow to CBI security clearance to use CBI information (Refer to Section H of the schedule for security requirements). The contractor shall factor in the use of CBI information in accordance with contract requirements and limitations to include using the Office of Science and Technology Confidential Business Information (OST-CBI) Application Security Plan (August 2011) or its successor approved plans.

### 1.4 - Example of a Contract-wide Programmatic QAPP

In order to assist the Contractor in understanding how to prepare a contract-wide programmatic QAPP, EPA is providing an example as **Attachment C**. This example QAPP was prepared by different contractor for a different contract. Accordingly, the QA objectives and strategies described in the attached example were not prepared for the subject contract, and the Contractor should *not* simply copy material from the attached example for use in their own programmatic QAPP. Rather, the Contractor shall use the attached example only as a tool to help understand how to develop programmatic QAPP, and shall prepare its own programmatic QAPP that is specific to and tailored to the needs of Contract EP-C-12-021.

### Task 2 – Clarification/Modification of Customized Quality Management Plan (QMP) (Performance Work Statement, Section 3.0)

Prior to award of Contract EP-C-12-021, the Contractor submitted a customized QMP in response to the solicitation, followed by attachments that responded to EPA questions. Under Task 2 of this WA, the Contractor shall modify the customized QMP to explicitly correlate the items discussed in the attachments to the customized QMP.

### Task 3 – Development of Confidential Business Information Security Plan (Performance Work Statement, Section 3.0)

The Contractor shall develop a plan identifying measures to protect confidential business measures held at its facility. The plan will be similar to the CBI security plan used in the EAD, **Office of Science & Technology Confidential Business Information (OST-CBI) Application Security Plan, August 2011**. See Attachment D OST CBI plan. The plan will be substantive similar to the one used by EAD. It will secure both physical and electronic forms of CBI

**Deliverables**

| Deliverable/Task | Projected Schedule Date |
|---|---|
| Contract-wide QAPP (Task 1) | Within 15 days after submittal of the Work Plan |

| | |
|---|---|
| Revised QAPP reflecting EPA comments, if needed (Task 1) | Within 10 days of receipt of EPA comments on initial submission |
| Clarification/Modification of Customized QMP (Task 2) | Within 90 days after submittal of the Work Plan |
| CBI Plan (Task 3) | Within 60 days after submittal of the Work Plan |

**Attachments**

- **Attachment A**, Effluent Guidelines Program Development Steps
- **Attachment B**, Revised 304m Review Methodology
- **Attachment C,** Example of a Contract-wide Programmatic QAPP
- **Attachment D,** Office of Science & Technology Confidential Business Information Application Security Plan

# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-40

☐ Other ☐ Amendment Number:

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Programmatic QA Project Plan |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☐ Work Assignment Amendment
- ☒ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/26/2012 To 09/25/2013

Comments:

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*): ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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### Authorized Work Assignment Ceiling

| | Contract Period | Cost/Fee | LOE |
|---|---|---|---|
| | 09/26/2012 To 09/25/2013 | $0.00 | |
| This Action: | | $22,694.68 | |
| Total: | | $22,694.68 | |

### Work Plan / Cost Estimate Approvals

| | | | |
|---|---|---|---|
| Contractor WP Dated: | 10/26/2012 | Cost/Fee: $32,089.00 | LOE: 246 |
| Cumulative Approved: | | Cost/Fee: $32,089.00 | LOE: 246 |

| | |
|---|---|
| Work Assignment Manager Name: Marion Kelly<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1045<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name:<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |

# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-40

☐ Other ☒ Amendment Number: 000001

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Programmatic QA Project Plan |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 12/12/2012 To 09/25/2013

Comments:

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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### Authorized Work Assignment Ceiling

| | Contract Period: | Cost/Fee: | LOE: |
|---|---|---|---|
| This Action: | 09/26/2012 To 09/25/2013 | | |
| Total: | | | |

### Work Plan / Cost Estimate Approvals

| | | |
|---|---|---|
| Contractor WP Dated: | Cost/Fee: | LOE: |
| Cumulative Approved: | Cost/Fee: | LOE: |

| | |
|---|---|
| Work Assignment Manager Name: Marion Kelly<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1045<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name:<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |

**Performance Work Statement**
**Contract EP-C-12-021**
**Work Assignment 0-40**
**Amendment 1**

**Title:** Contract-level Programmatic Quality Assurance Project Plan

**Work Assignment Manager (WAM):**
Marion Kelly
U.S. EPA/OW/OST/EAD (4303T)
EPA West, Room 6233D
1200 Pennsylvania Ave., N.W.
Washington, DC 20460
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FAX: 202-566-1053
E-mail: kelly.marion@epa.gov

**Task 3 Manager:**
Ahmar Siddiqui
U.S. EPA/OW/OST/EAD (4303T)
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1200 Pennsylvania Ave., N.W.
Washington, DC 20460
Phone: 202-566-1044
FAX: 202-566-1053
E-mail: siddiqui.ahmar@epa.gov

**Period of Performance: Work Assignment Issuance through September 25, 2013**

Additional hours are required for Task 1 to address revisions to EPA comments on the first draft of the Programmatic Quality Assurance Project Plan and then a final round of edits to address EPA WAM review comments. This amendment is for revisions, additional graphics support and formatting on the document and additional support from the program manager and a lab manager to help answer questions and revise the analytical analysis section.

# EPA

United States Environmental Protection Agency
Washington, DC 20460

## Work Assignment

Work Assignment Number: 0-40

☐ Other ☐ Amendment Number:

| Contract Number | Contract Period | Title of Work Assignment/SF Site Name |
|---|---|---|
| EP-C-12-021 | 09/26/2012 To 09/25/2013 | Programmatic QA Project Plan |
| | Base X Option Period Number | |

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☐ Work Assignment Amendment
- ☒ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 12/12/2012 To 09/25/2013

Comments:
This Work Plan Approval incorporates Amendment 1.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*): ☐

| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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### Authorized Work Assignment Ceiling

| | Contract Period | Cost/Fee | LOE |
|---|---|---|---|
| | 09/26/2012 To 09/25/2013 | $22,694.68 | |
| This Action: | | $17,780.59 | |
| Total: | | $40,475.27 | |

### Work Plan / Cost Estimate Approvals

| | | | |
|---|---|---|---|
| Contractor WP Dated: | 12/18/2013 | Cost/Fee: $16,168.00 | LOE: 130 |
| Cumulative Approved: | | Cost/Fee: $48,257.00 | LOE: 376 |

| | |
|---|---|
| Work Assignment Manager Name: Marion Kelly<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1045<br>FAX Number: |
| Project Officer Name: Meghan Hessenauer<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 202-566-1040<br>FAX Number: |
| Other Agency Official Name:<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number:<br>FAX Number: |
| Contracting Official Name: Brad Heath<br>(Signature) (Date) | Branch/Mail Code:<br>Phone Number: 513-487-2352<br>FAX Number: |